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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,878	09/23/2003	Katsumasa Yoshii	9281-4667	3612

7590 10/31/2005

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Chicago, IL 60610

EXAMINER
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NGUYEN, HOAN C

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/668,878

Applicant(s)

YOSHII ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-28 is/are pending in the application.  
4a) Of the above claim(s) 21, 22, 25 and 28 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 17-20, 24, 26 and 27 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 06/8/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☒ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/08/2005 has been entered.

Applicant cancelled claims 1-16 and 29-38. The nonelected claims 21-22, 25 and 28 are withdrawn.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17-20, 23-24 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 17 amended with New Matter:

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“a distance between adjacent curved portions, measured between a line perpendicular to the base material and passing through a portion of each adjacent portion having a tangent to a surface thereof parallel to the base portion, is in the range of 0.1 micrometers to 10 micrometers.”

because the specification discloses in paragraph 33 as following:

[0033] In this case, the normal lines extending from the respective centers of the spheres to the reflector surface are preferably spaced apart from each other in a range of 0.1  $\mu\text{m}$  to 10  $\mu\text{m}$ . When the interval is less than 0.1  $\mu\text{m}$ , suitable directionality cannot be obtained, and when more than 10  $\mu\text{m}$ , reflection intensity of regular reflection becomes significantly small. The larger the spaced distance of each normal line, the greater a difference between the incident angle and the reflection angle whose reflectance is its highest. (this feature correlates to Fig. 9).

There is nowhere in specification discloses “a distance between adjacent curved portions is in the range of 0.1 micrometers to 10 micrometers.” Examiner may interpret the amended features as whether (1) the opening of each curved portion is in the range of 0.1  $\mu\text{m}$  to 10  $\mu\text{m}$ ; or (2) the pitch of the curved portions is in the range of 0.1  $\mu\text{m}$  to 10  $\mu\text{m}$  (see attachment). However, any claim language or any interpretation, which does not correlated to the disclosure, generate the New Matter.

Claims 18-20, 23-24 and 26-27 are rejected since they depend on the infinitive claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-20, 23-24 and 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In the above amended feature, "a distance measured between a line perpendicular to the base material and passing through a portion of each adjacent portion having a tangent to a surface thereof parallel to the base portion" is unclear. What is "a portion of each adjacent portion"? Where in a portion is perpendicular line passing through? What is relationship of a perpendicular line and adjacent portion? Figure 9 of this application shows a curved 34a including two adjacent parts, each part is generated by a sphere with different radius  $R_1$  and  $R_2$  and has a tangent  $\Theta_1$  and  $\Theta_2$  to a surface thereof parallel to the base portion. Distance between the sphere centers is in range of  $0.1\mu\text{m}$  to  $10\mu\text{m}$ .

Claims 18-20, 23-24 and 26-27 are rejected since they depend on the infinitive claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H. Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

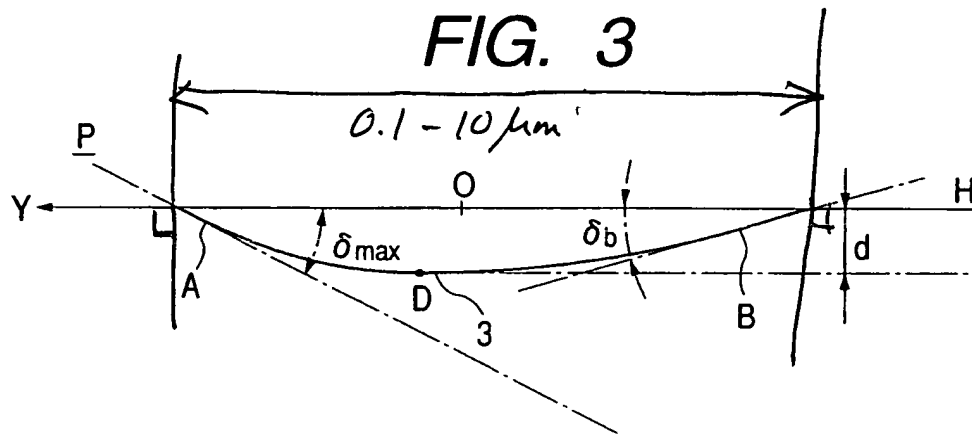
HOAN C. NGUYEN  
Examiner  
Art Unit 2871

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ANDREW SCHECHTER  
PRIMARY EXAMINER

2/11

Attachment  
(please scan and Mail)



or

